

**EXHIBIT 5**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : PAOLETTI et al  
Serial No. : 08/228,926 Filing Date : April 18, 1994  
For : MODIFIED VACCINIA VIRUS AND METHODS FOR  
MAKING AND USING THE SAME  
Examiner : Mary Mosher Art Unit : 1648  
Confirmation No.: 4171  
745 Fifth Avenue New York, NY 10151

**FILED VIA EFS**

**DECLARATION OF DR. DENNIS PANICALI**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Dear Sir:

**DENNIS PANICALI** declares and states that:

1. I have read and understood the May 16, 2008 Office Action issued in the above-captioned patent application ("the present application"). I am familiar with US Patents Nos. 4,769,330, 4,603,112, 5,747,324, 5,614,404, 5,093,258, and 6,699,475. I am named as an inventor on each of the foregoing patents, and am qualified to speak with respect to the dates of invention – conception and reduction to practice – of the subject matter in each of those patents. Also, I founded Therion Biologics Corporation ("Therion"). I served Therion in various positions from its founding to when it ceased doing business, including as President, CEO and Chief Scientific Officer. Inventions made at or assigned to Therion, especially in US Patents Nos. 5,747,324, 5,614,404, 5,093,258, and 6,699,475, were made under my direction, supervision and control. And from that capacity too, I am qualified to speak as to the dates of invention – conception and reduction to practice – of the subject matter in each of US Patents Nos. 5,747,324, 5,614,404, 5,093,258, and 6,699,475, each of which is assigned to Therion.

2. The inventions of US Patents Nos. 4,769,330 and 4,603,112, and especially the Examples stated in US Patents Nos. 4,769,330 and 4,603,112, were conceived and actually reduced to practice in the United States, prior to November 30, 1982. I founded Therion after the inventions and Examples of US Patents Nos. 4,769,330 and 4,603,112, were conceived and actually reduced to practice in the United States.

3. The inventions of each of US Patents Nos. 5,747,324, 5,614,404, 5,093,258, and 6,699,475, and especially the inventions of claims 1-7 of US Patent No. 5,747,324, the inventions of claims 1-4 of US Patent No. 5,614,404, the inventions of claims 1-5 of US Patent No. 5,093,258, and the inventions of claims 4 and 6 of US Patent 6,699,475, could not have been included in the disclosure in either US Patents Nos. 4,769,330 and 4,603,112, because the inventions, including as claimed, of each of US Patents Nos. 5,747,324, 5,614,404, 5,093,258, and 6,699,475 had not been invented (conceived, reduced to practice) by December 24, 1981 and December 8, 1982 – the US filing dates of US Patents Nos. 4,769,330 and 4,603,112.

4. Indeed, the claims of US Patent No. 5,747,324 arose from a patent application filed June 10, 1988, the claims of US Patent No. 5,614,404 arose from a patent application filed June 10, 1988, the claims of US Patent No. 5,093,258 arose from an application filed August 26, 1988, and the claims of US Patent No. 6,699,475 arose from an application filed September 2, 1987.

5. More in particular, the claims of US Patent No. 5,747,324 had not been invented (conceived, reduced to practice) by December 24, 1981 and December 8, 1982. The claims of US Patent No. 5,614,404 had not been invented (conceived, reduced to practice) by December 24, 1981 and December 8, 1982. The claims of US Patent No. 5,093,258 (conceived, reduced to practice) had not been invented by December 24, 1981 and December 8, 1982. And the claims of US Patent No. 6,699,475 had not been invented (conceived, reduced to practice) by December 24, 1981 and December 8, 1982. Therefore, claims 1-7 of US Patent No. 5,747,324, claims 1-4 of US Patent No. 5,614,404, claims 1-5 of US Patent No. 5,093,258, and claims 4 and 6 of US Patent 6,699,475, could not have been included in the disclosure in either US Patents Nos. 4,769,330 and 4,603,112.

6. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the application or any patent issuing thereon.

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Date

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DR. DENNIS PANICALI